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The Use of Paracervical Block Anesthesia for Dilatation and Curettage

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ABSTRACT

Paracervical block anesthesia was used for dilatation and curettage in 37 patients in situations where general anesthesia or sophisticated forms of conduction anesthesia were either unavailable or contraindicated. Ten millilitres of either 1% xylocaine or procaine or 5 ml. of 2% xylocaine was placed into each lateral fornix with a standard 6-inch, 20-gauge needle at a depth of six to 12 millimetres. The block's effect was good in 34 cases and fair in three; there were no failures. No significant complications occurred. The necessity of guarding against and/or being prepared to treat local anesthetic sensitivity is recognized. Paracervical block proved to be a convenient, safe, simple and effective anesthetic technique for dilatation and curettage, including when other anesthetic techniques were contraindicated.

SOMMAIRE

L'anesthésie paracervicale régionale a été employée pour dilater le col et curetter chez 37 femmes où l'anesthésie générale ou des formes raffinées d'anesthésie par conduction étaient, soit indisponibles soit contre-indiquées. On injecta dans les deux culs-de-sac latéraux, au moyen d'une aiguille ordinaire de six pouces et de calibre 20, et à une profondeur varient de six à 12 mm., une dose de 10 ml. de xylocaïne ou de procaïne à 1% ou une dose de 5 ml. de xylocaïne à 2%. L'effet de l'anesthésie a été bon dans 34 cas et moyen dans les trois cas restants. Il n'y eut ni échec ni complication notable. Il faut prévoir la possibilité d'une hypersensibilité à l'anesthésique local et être prêt à la traiter le cas échéant. L'anesthésie paracervicale s'est révélée comme une méthode commode, sûre, simple et efficace pour la dilatation et le curettage, particulièrement dans les cas où d'autres méthodes anesthésiques sont contre-indiquées.

PARACERVICAL block has been used as an anesthetic technique for certain gynecological procedures for many years,[3, 6, 9, 11] and particular reference has been made to its efficacy in the Manchester-Fothergill operation, cervical repair and amputation.

The objective of the study reported in this communication was to re-evaluate the efficacy of paracervical block as an anesthetic technique for dilatation and curettage in situations where general anesthesia or sophisticated forms of conduction anesthesia were either unavailable or contraindicated. Its simplicity and ease of administration by physicians untrained in anesthesiology is widely recognized.

Uterine innervation and the mechanism of action of paracervical block have been fully described elsewhere.[1, 4, 7, 10]

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METHOD

Various members of the house staff and attending staff of Woman's Hospital carried out these paracervical blocks. The patients were placed in lithotomy position and, under sterile conditions in the operating room, they were suitably prepared and draped. The anesthetic agent was injected, using a standard 6-inch No. 20 needle, at the apex of the lateral fornices at 3 and 9 o'clock at a calculated depth of 6 to 12 mm. No special instruments were used. Ten ml. of 1% lidocaine (Xylocaine), 1% procaine, or 5 ml. of 2% lidocaine was injected in each lateral fornix. The injections were preceded by intermittent aspirations to ensure that paracervical blood vessels had not been punctured. Vasopressors and oxygen were always available. Suspected or known allergy to local anesthesia was the only contraindication.

RESULTS

Thirty-seven women were subjected to this procedure. The youngest was 15 and the oldest 50 years of age; 81% were between the ages of 21 and 40. In 27 the clinical diagnosis was incomplete abortion (20 spontaneous and seven septic), seven had dysfunctional uterine bleeding and three had postpartum bleeding.

The indications for paracervical block emphasize its usefulness and safety in conditions where general anesthesia and conduction techniques carried some risk: 17 were anemic (hemoglobin of less than 10 g.), four had recently eaten, three had respiratory problems, three were in borderline shock, five had miscellaneous medical complications, two blocks were done because no anesthesiologist was immediately available, and three were done electively.

The dosage of anesthetic agent used was 20 ml. of 1% lidocaine in 34 cases, 20 ml. of 1% procaine in two cases and 10 ml. of 2% lidocaine in one.

The effect was good in 34 of the blocks and fair in three. There were no failures. The single complication was mild drug sensitivity in one woman that required no specific therapy. No instances of peripheral vascular collapse, sacral neuritis,[5] convulsions,[8] broad ligament hematoma[12] or parametritis[2] were encountered.

Paracervical block was used in conjunction with premedication (Table I) in 35 of the 37 cases. In addition to the three patients who had only a fair result from the block, 10 others were given medication after administration of the block, to improve the overall effect.

TABLE I.—GYNECOLOGICAL PARACERVICAL BLOCK STUDY: OTHER MEDICATION

	Medication before paracervical block	*Medication during paracervical block*
Meperidine	26	7
Barbiturates	6	0
Atropine or scopolamine	28	0
Nitrous oxide and oxygen	0	2
Other	5	4
None	2	20

Anemia and sepsis were the commonest complications in these women (Table II), but they were not related to the use of paracervical block.

TABLE II.—GYNECOLOGICAL PARACERVICAL BLOCK STUDY: ASSOCIATED CONDITIONS UNRELATED TO PARACERVICAL BLOCK

Fever before and after surgery	8
Anemia	10
Blood transfusions (2 to 4 units)	11
Blood reaction	2
Other	5
None	12

COMMENT AND CONCLUSIONS

Paracervical block proved to be a convenient, safe, simple, effective anesthetic technique for dilatation and curettage, particularly in women for whom general anesthesia or conduction anesthesia was contraindicated or unavailable. The few only fair results were associated with inaccurate placement of the anesthetic agent. There were no significant complications. The necessity of guarding against and being prepared to treat sensitivity to the local anesthetic agent is important.

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PAGES OUT OF THE PAST: FROM THE JOURNAL OF FIFTY YEARS AGO

ULTRAVIOLET STERILIZATION OF WATER SUPPLIES

Major J. G. Fitzgerald delivered an address upon the subject, "The use of ultra-violet rays for the sterilization of water in the field." This was applied to the water used at the military camp at Niagara this past summer. Fifteen hundred (1500) gallons an hour running past three lamps gave an adequate supply of good water for the camp. No cases of typhoid developed from camp water.—Medical Societies, *Canad. Med. Ass. J.*, 6: 82, 1916.